

REMARKS/ARGUMENTS

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks. Claims 38-66 remain pending.

Claims 38-66 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Barnett et al. (U.S. Patent No. 5,428,816) in view of Brody et al. (U.S. Patent No. 4,670,899). Applicants respectfully traverse.

Contrary to the Examiner's allegation, Barnett does not disclose "classifying cells of said communications system into multiple handover-related classes based on radio coverage characteristics of said cells, each handover-related class being associated with a handover signal strength threshold and each handover-related class comprises multiple cells" as recited in claim 1.

Barnett is directed toward a mobile assisted handoff. When a signal level between a mobile unit and a serving base station drops to an unacceptable level, the base station initiates the mobile assisted handoff by ordering the mobile unit to take measurements of neighboring cells. The list of neighboring base stations to measure is provided by the serving base station.

Barnett discloses usage of two different types of handover signal strength thresholds (column 5, lines 3-7; column 6, lines 31-38). The first of these two thresholds is used for determining when a neighboring cell is to be included in a measurement list of potential handover candidates (column 5, lines 4-6; column

6, lines 34-35). The second threshold is used for triggering the change of serving cell to a neighboring cell (column 5, lines 6-7; column 6, lines 35-38).

Barnett does disclose classifying the neighboring base stations, but the classification is only relevant to determining whether or not the base station will be included in the measurement list. The threshold for determining whether a handover will take place is the same for all base stations regardless of the classification.

In column 5, lines 34-45, Barnett discloses that each neighboring cell has a measurement class and priority associated with a serving cell. The priority in this context is the priority of being included in the measurement list. Based on the measurement class priority, the serving base stations determines which of the neighboring base stations will be included in the list of base stations that the mobile unit will measure when ordered to do so by the serving base station.

In the Office Action the Examiner refers to paragraphs in column 7, lines 3-13 and column 8, lines 11-33. However, these paragraphs merely disclose when the cells of different measurement classes will be included in the measurement list. Class I neighboring cells are included in the handoff measurement list as soon as a traffic channel is activated in the serving cell. Class II neighboring cells are included in the measurement list first when the signal strength of the traffic channel (TCH) for the serving cell falls below the first of the two fixed threshold mentioned above. Class III neighboring cells are included in the list only when the signal strength of the TCH for the serving cell

falls below the second, fixed threshold (column 7, lines 3-13; column 8, lines 11-26). The relied upon portion merely dictates whether or not the neighboring base station will be included in the list of base stations for measurement.

For handover purposes, the signal strength threshold is not differentiated between the classes. Figure 8 illustrates the process of performing the handover. As illustrated, in Figure 8, only the neighboring cell that meet the signal level threshold criteria of step 134 will be selected for handoff, which is the second of the two fixed thresholds discussed above. The same threshold is applied equally for all neighboring base stations regardless of the class.

In sum, the two thresholds are fixed and applied to the whole cellular communication system Barnett; all the handover-related classes share the same two fixed thresholds. Thus, Barnett does not teach or suggest "wherein a handover signal strength threshold associated to a first handover-related class of said multiple handover-related classes being different from a handover signal strength threshold associated to a second handover-related class of said multiple handover-related classes."

Brody does not correct Barnett's deficiencies. Brody is related to balancing the load in a cellular communication system by conducting handovers of calls from cells with higher voice channel occupancy levels to adjacent cells with lower voice channel occupancy levels (Abstract).

Brody discloses that all the cells in the cellular communication system are assigned one and the same handover threshold (column 18, lines 33-37).

Each cell then has respective hysteresis value that is used in the comparison between measured signal strength and the handover threshold (column 18, 42-45). This hysteresis value is used in order to prevent a switch back and forth in the assignment of serving cell due to small fluctuations in the measured signal strength.

Brody does not teach or suggest any classification of cells. Brody further does not teach or suggest any class-specific handover thresholds and in particular does not disclose assigning a first such threshold to a first handover-related class and assigning a second, different threshold to a second handover-related class.

In the Office action, the Examiner refers to column 24, lines 6-28 as disclosing radio coverage characteristics. However, this section merely discloses the different variable simulation parameters used for conducting a computer-aided simulation of the invention disclosed by Brody.

Thus, a combination of Barnett and Brody, even if contemplated, would merely guide one of ordinary skill towards using one and the same handover signal strength threshold or the same set of handover signal strength thresholds for all the cells in the cellular communication system as both Barnett and Brody stress the usage of such fixed threshold(s).

Barnett and Brody taken either individually or as a combination guides one of ordinary skill in a fundamentally different direction by consistently stating that the same signal handover signal strength threshold (set) is used for

different cells even if they belong to different classes. Therefore, independent claim 38 is distinguishable over the combination of Barnett and Brody. For similar reasons, claim 49 is also distinguishable over Barnett and Brody.

Regarding claim 39, Barnett does not explicitly disclose the transmission of a handover triggering command to the user equipment. In a clear contrast, it merely states that a handover is made once certain criteria are met (column 9, lines 55-56).

Also, Barnett and Brody do not disclose “wherein a handover signal strength threshold associated to a first handover-related class of said multiple handover-related classes being different from a handover signal strength threshold associated to a second handover-related class of said multiple handover-related classes.” As demonstrated, Barnett and Brody, individually or in combination does not teach or suggest this feature.

Furthermore, as discussed above, Barnett does not disclose the assignment of respective handover signal strength thresholds to the different handover-related classes. In clear contrast, one and the same threshold set of two thresholds is used for all cells in the communication system. Also, Brody does not provide any additional guidance to one of ordinary skill towards assigning and using class-specific signal strength thresholds in connection with a handover procedure.

Thus, claim 39 is distinguishable over Barnett and Brody. For similar reasons, claim 52 is also distinguishable.

Regarding claim 40, Barnett does not disclose that the handover signal strength threshold is determined based on the radio coverage characteristics of the cell. In clear contrast, Barnett uses two fixed thresholds for all the cells in the communication system (column 5, lines 3-4). Also, Brody discloses the usage of a single hand-off threshold for all the cells (column 18, lines 33-34).

Thus, the combination of Barnett and Brody would not guide one of ordinary skill to determine signal strength thresholds based on the radio coverage characteristics of the cells. One of ordinary skill would instead use a fixed such threshold or a set of fixed thresholds regardless of varying radio coverage characteristics for the cells. Claim 40 is distinguishable over Barnett and Brody. For similar reasons, claims 55 and 62 are also distinguishable.

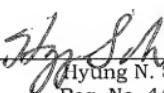
By virtue of their dependencies from independent claims as well as on their own merits, claims 41-48, 50-51, 53-54, 56-61 and 63-66 are distinguishable. Applicants respectfully request that the rejection of claims 38-66 based on Barnett and Brody be withdrawn.

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact Hyung Sohn (Reg. No. 44,346), to conduct an interview in an effort to expedite prosecution in connection with the present application.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Respectfully submitted,

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